

Product datasheet for **SC323491**

CGK2 (PRKG2) (NM_006259) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CGK2 (PRKG2) (NM_006259) Human Untagged Clone
Tag:	Tag Free
Symbol:	CGK2
Synonyms:	cGK2; cGKII; PKG2; PRKGR2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC323491 sequence for NM_006259 edited (data generated by NextGen Sequencing)

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ATGGGAAATGGTTCAGTGAAACCTAAACATTCTAAGCACCCAGATGGACACTCTGGGAAC
CTCACCCTGATGCTCTGCGGAACAAGGTGACAGAGCTGGAGAGAGAGTTGAGGAGGAAG
GATGCTGAGATCCAGGAGCGGGAGTACCATTTGAAGGAGCTGCGGGAGCAGCTGTGGAAG
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GATTTGATTCCGAGGCTTTGCAGGCAAAATCCAACAGAAAGGCTGGGAAATCTGAAGAAT
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TTTGACAAATATCCTCCTGAAAAGGGAATGCCTCCAGATGAGCTATCAGGCTGGGATAAA
GACTTCTGA
    
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Clone variation with respect to NM_006259.1
1445 a=>t

5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_006259 unedited ACCGCCGTCTGAGCAACTGGGCGGTAGGCGCTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGT GAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGGCACCAGCCAGAGTGAAC ATGGTTTTTGGTTGCCTTCAAAGATAATTAGGTCCTGAGCAAAATGGGAAATGGTTCAGTGAAACCTAA ACATTCTAAGCACCCAGATGGACACTCTGGAACTCACCCTGATGCTCTGCGGAACAAGGTGACAGAG CTGGAGAGAGAGTTGAGGAGGAAGGATGCTGAGATCCAGGAGCGGAGTACCATTTTGAAGGAGCTGCGG GGAGCAGCTGTGAAGCAGACTTGTGGCCATTTGCTTGACCTCCACAGAAGGAGCTTCCAGAACCAAGG TGCATCCCAGCTGAACCAAGCCTGCAGGAAGTGTGGTTGCATATGCCAGGGGAGGAGCCCCGGCTCAAG GCCCTTCTCCGAATAAAGTGCCCTTTGGAGGTCACACCGAAGAGACTCCTGGTTTGGTTTCTCTCCATT GGCAAGAAAGGGGAGAAAAGGTTGCCGTGCCTCGTGAGGCAAACAAACCGGAACCTAGGACCTGAAAAC CCCCTGAATTCCTTTGAAACCGAGATTCAAAGAGACTCATGAGAAGAACTCATATACGATGCCCTATA TAAATATAGTTTCGAAAACTGGTTCACACATACAGACATGTGTGAATGCAGTGTATGAAAACACTTC CCAGGGTTCATTTAGCCAGGGAACCGGGAACATCTTGGCTGCAAGTCCACTAAGTGTTCGAAGGAGAT GCGCTCCATCCATTTGACCATGAGCTGCATTACATGCAAGGTCTGGACTCAGTACTGGCTATTCAAGATC GAATTAAGAAGAG
Kinase Domain Sequence:	>SC323491 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation TYATATCCATTACAGACCTTGGATTATTGCAACACTGGGCGTTGGTGGGTTTCGGAAGAGTTGAGCTTGT TAAAGTAAAAATGAGAATGTTGCTTTTGTATGATGTGTATAAGGAAGAAGCACATAGTTGACACCAAG CAGCAGGAGCATGTCTACTCAGAGAAGAGGATCCTAGAGGAGCTGTGCTCTCCATTCATTGTGAAATTAT ATCGTACTTTCAAGGACAATAAGTATGTATACATGCTTCTGGAGG
Restriction Sites:	Please inquire
ACCN:	NM_006259
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell , 2008 May p536-548.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_006259.1 , NP_006250.1
RefSeq Size:	3328 bp

RefSeq ORF:	2289 bp
Locus ID:	5593
UniProt ID:	Q13237
Cytogenetics:	4q21.21
Domains:	cNMP, pkinase, S_TK_X, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Gap junction, Long-term depression, Olfactory transduction
Gene Summary:	<p>This gene encodes a protein that belongs to the serine/threonine protein kinase family of proteins. The encoded protein binds to and inhibits the activation of several receptor tyrosine kinases. The membrane-bound protein is a regulator of intestinal secretion, bone growth and renin secretion. Alternate splicing results in multiple transcript variants encoding distinct isoforms whose regulatory N-termini differ in length but whose C-terminal catalytic domains are identical. [provided by RefSeq, May 2018]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (a). Variants 1 and 7 encode the same isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>